DOCUMENT RESUME

ED 258 328 EA 017 784

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TITLE Job Specific Behavioral & Environmental Privacy Regulation.
PUB DATE 84
NOTE 15p.; Paper presented at the Annual Meeting of the American Psychological Association (92nd, Toronto, Ontario, Canada, August 24-28, 1984).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Administrator Characteristics; Administrators; Coping; Hypertension; *Privacy; *Stress Management; Stress Variables; Work Environment
IDENTIFIERS *Job Stress

ABSTRACT

The findings from a study of 42 administrators in a large metropolitan school district supported the hypothesis that the use of privacy regulation mechanisms is deliberate and dynamic. The researchers considered the age and sex of the administrators, the length of time they'd held their current jobs, their tendencies toward Type A or Type B personalities, and the physical arrangement of their offices. The researchers also examined the degree to which the administrators were affected by four types of stressors, the extent to which they used eight different behavioral mechanisms to reduce inputs from others on typical and on busy days, and their tendency to suffer from high blood pressure. The study results indicated that behavioral and environmental mechanisms are used in combination, and their use increased with day-to-day changes in job demands. The use of these mechanisms appeared most likely among people with job tasks necessitating isolation. No evidence was found that the use of behavioral privacy mechanisms relieved stress as indicated by blood pressure problems; in fact, use of some mechanisms was associated with increased likelihood of such problems. The researchers assert that further study is needed. (PGD)

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Job Specific Behavioral & Environmental Privacy Regulation

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ABSTRACT

Privacy regulating mechanisms were hypothesized to be dynamic, i.e., to occur at several levels of functioning and to vary with changing needs. Responses of 42 school administrators to a questionnaire indicated intercorrelations among a variety of behavioral and environmental avoidance mechanisms. Increases occurred from typical to busy days in both the estimated frequency of use of behavioral mechanisms and the simultaneous use of mechanisms (i.e., the intercorrelations showed an increase). Respondents whose jobs necessitated working alone were most likely to use behavioral mechanisms (nontask stressors were not associated with privacy regulation).

There was no relationship between chronic high blood pressure and task stress, however there was a significant relationship between chronic high blood pressure and use of privacy mechanisms, such that use of the mechanisms actually increased the likelihood of high blood pressure. Closer examination of the data indicated that this effect was due to a combination of behavioral style and privacy regulating mechanisms. Although Type A's were more likely to use "coming in early/staying late" on normal days, this behavior was not correlated with chronic high blood pressure for them; however, the remaining mechanisms were correlated with chronic high blood pressure for this group. In contrast, for non-Type A's, use of the "coming in early/staying late" mechanism was correlated with high blood pressure, but the remaining

EA 017 784

APA 1984
Convention

mechanisms were not.

The results do not support the hypothesis that privacy regulation can buffer one against job stress and strain, and suggest that at least one of the mechanisms can be viewed as overwork rather than as a simple privacy regulation mechanism. Additional research is needed to corroborate the present data, and to determine whether privacy regulation mechanisms are effective in other domains, such as increased productivity, enhanced sense of control, etc.

Job Specific Behavioral & Environmental Privacy Regulation

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Privacy is a complex phenomenon involving control over access to the self (see Margulis, 1977 for reviews; see also Sundstrom et al., 1980; Sundstrom et al., 1982). It can be regulated psychologically (i.e., control of the intimacy of information) as well as physically (i.e., control of physical qualities such as visual and auditory stimuli). Privacy regulation refers to both control over inputs from others (e.g., distracting movements) as well as control over one's own outputs (being seen by others). According to Altman (1975), privacy regulation is a dynamic process. That is, individuals can use a variety of mechanisms, from several levels of functioning, alone or in combination, to achieve desired privacy levels. Furthermore, the degree of privacy desired changes with changing circumstances. Altman argued that the failure adequately to regulate privacy can be stressful. Altman treated privacy as a dialectic process of opening and closing the self; in the present research, we focus on the closing off aspect because that aspect is most often needed in the work environment.

The purpose of the present study is to examine the dynamic qualities of privacy regulation in an office environment, and to attempt to link inadequate privacy regulation with one index of strain, high blood pressure. We examined behavioral and environmental mechanisms which school administrators used to reduce physical inputs from others, hypothesizing that if privacy regulation is a dynamic process, then privacy regulation should be associated with job pressures that required a degree of isolation, but not with other kinds of job

pressures (cf. Sundstrom, 1980). Furthermore, the use of behavioral mechanisms should vary with changing job demands. Finally, we should find that adequate regulation of needed privacy should be related to reduced strain, or the absence of high blood pressure. We were especially interested in the effect of being a Type A on the strain reducing qualities of privacy regulation.

Method

Male (n = 19) and female (n = 23) administrators and coordinators from a large metropolitan school district participated in the study during one of their regularly scheduled staff meetings. Their ages ranged from 25 to 62 (M = 48.34), and they had held their current job for an average of 7.0 years.

Type A/B. Respondents completed the Jenkins Activity Survey, Form B (Jenkins, Rosenman, & Zyzanski, 1974), a 21-item measure of the Type A and B behavior patterns. Optimal weighted scores were computed (Jenkins, Zyzanski, & Rosenman, 1971) (M = 1.92; SD = 12.20). Respondents were considered to be extreme Type A's if their JAS score was in the upper 25%. In analyses, extreme Type A's were compared with all others (cf. Rhodewalt, Hays, Chemers, & Wysocki, 1984).

Job stress. The specific jobs and responsibilities are not known, but the group included curriculum planners for all levels of education, audiovisual specialists, etc. In order to tap their job pressures, we used a questionnaire developed for school administrators by Koch et al. (1982) which has four known job stress factors: role based stress (uncertainty about job responsibilities); task based stress (too much to do in too little time); boundary spanning stress (working with problems outside the system); and conflict mediation stress (e.g., parent-school conflicts). Respondents

indicated on 5-point scales how much these stressors bothered them (range: never to frequently). Only task based stress contained items which tapped the respondent's stress in relation to tasks which necessitated working alone; therefore, only that factor was expected to be related to the use of privacy mechanisms.

Privacy mechanisms. The questionnaire contained eight behavioral mechanisms one might use to avoid inputs from others. Most (95%) respondents had private offices, so the mechanisms tapped behaviors one could do in a private room. Respondents indicated on 5-point scales how frequently they used each mechanism on a typical day, and then how frequently they used each when they did not want to be interrupted. Respondents could also add their own mechanisms, however this occurred too infrequently to permit analysis.

Subjects next drew maps of their offices, indicating the doors, chairs, desk, windows, and other major furniture. The central question asked about the office arrangements was their ability to reduce inputs from others, or to reduce the chances that the respondent would be distracted by passersby. Two major indices were derived from these maps: 1) when they sat at their desk and looked straight ahead, how many degrees did they have to turn their head to see someone standing in their doorway (this was measured with a protractor, raters' disagreements were resolved through discussion); and 2) to what extent did they have to turn their head to see out of the window (as rated by two independent raters on a 3-point scale, reliability index, $r = .88$)?

Strain: Blood pressure. Respondents completed a brief health history questionnaire with 3 questions regarding chronic elevated blood pressure (e.g., has a doctor said you have high blood pressure?). Participants also had their blood pressure checked by a registered nurse. A number of

respondents were currently on medication for high blood pressure, making it impossible to use either blood pressure or blood pressure history alone as a single index of blood pressure problems. Therefore, an index was created which combined both indicators; respondents were considered to have chronic blood pressure problems if they reported a history of blood pressure problems (including current treatment) or if their measured diastolic blood pressure was greater than or equal to 95 (the typical criterion for treatment).

Results

Preliminary analyses indicated support for hypothesis that privacy is a dynamic process. As can be seen in Table 1, the use of the mechanisms was infrequent, however use increased from normal to busy days in response to changing job demands (dependent $t(37)$ of mean ratings = 5.90, $p < .001$).

For ease of analysis, the eight items were summed into single indices of privacy regulation on typical (alpha = .61) and busy days (alpha = .81). A comparison of the mean inter-item correlations for these two scales is also consistent with the notion that use changes with changing needs. The higher intercorrelation for busy days, although not significantly higher ($p > .10$), suggests that respondents used broader combinations of the mechanisms when they needed to avoid inputs from others.

As can also be seen in Table 2, the behavioral mechanisms are complemented with furniture arrangement in the office environment; the summed score reflecting use of behavioral mechanisms on a typical day correlates with a desk oriented away from the door ($r(38) = .25$, $p < .057$) and (marginally) with a desk oriented away from the window ($r(38) = .21$, $p < .10$). (These correlations are not significant for the summed index of behaviors on a busy day.) In sum, respondents use a variety of privacy regulating mechanisms,

both behavioral and environmental, to control privacy.

As hypothesized, use of the behavioral mechanisms on a typical day is correlated with task-based stress ($p < .001$), but not the other sources of job stress ($ps > .10$) (see Table 2). This relationship does not obtain for use of the behavioral mechanisms on a busy day ($p > .10$), possibly because on a busy day everyone (not just those with general task overload) needs to be alone.

In sum, we have found that the use of privacy regulation mechanisms is deliberate and dynamic: use of behavioral mechanisms varies with day-to-day variations in job pressures; respondents report increasing both the number of behavioral mechanisms and their likelihood of use; respondents use both behavioral and environmental mechanisms; and use varies with the type of job pressure experienced.

The final question concerns the effectiveness of these mechanisms as moderators of the stress-strain relationship. Since task-based stress was the only job stressor to be associated with use of privacy regulation mechanisms, only that stress source was considered in the following analyses. There was no relationship between reported task-based job stress and blood pressure problems ($r(42) = -.04$), however, there was a relationship between use of privacy regulation mechanisms and blood pressure problems on a normal day ($r(42) = .29$, $p < .05$; busy day correlations will be reported in a longer version of this manuscript). Further examination of the data indicates that this effect is due primarily to two factors: Type A behavior pattern, and the use of "coming in early/staying late" as a mechanism. First, as can be seen in Table 1, extreme Type A's were more likely than other respondents to use the early/late mechanism; however, as can be seen in Table 3, use of that mechanism is not correlated with high blood pressure for Type A's, but it is

correlated with high blood pressure for the non-Type A's. Conversely, use of the other mechanisms is correlated with high blood pressure for the Type A's, but not for the non-Type A's. This pattern of results will be discussed below.

Contrary to expectations, there was little relationship between office arrangements which reduced distractions and chronic high blood pressure.

Discussion

The results indicate that behavioral and environmental mechanisms are reportedly used in a dynamic way to protect respondents from intrusions. The mechanisms are used in combination; their use increases with day-to-day changes in job demands; and their use is most likely among people with job tasks necessitating isolation.

Analyses of the relationships between the use of behavioral privacy mechanisms and chronic blood pressure problems provides no evidence that these mechanisms can serve as buffers in the stress-strain relationship. On the contrary, use of particular mechanisms was associated with an increased likelihood of chronic blood pressure problems. For persons not exhibiting the Type A behavior pattern, "coming in early/staying late" was associated with blood pressure problems; whereas for persons exhibiting the Type A pattern, the use of the remaining mechanisms was associated with blood pressure problems.

These results are rather startling, and additional research is needed to permit interpretation of the obtained relationships. One explanation is that for Type A's, "coming in early/staying late" is the only effective mechanism, and those who depend on more interpersonal avoidance mechanisms are unable to regulate privacy, and, therefore, are unable to be as productive as they hope. Non-extreme Type A's, in contrast, are effective with interpersonal

mechanisms, and only resort to long hours on the job when under extreme pressure, resulting in the obtained relationship.

Another kind of interpretation looks at the context in which the privacy regulation occurred, and the impact of the context on the behavior-blood pressure link. For example, interviews with the respondents indicated that in this organization, there is a very strong norm for openness. The administration promotes the idea that District personnel are public servants, and ought to be available to the public. There is also a belief that employees ought to be visible lest they be considered lazy or irresponsible. Such orientations strongly militate against the use of avoidance mechanisms (note, especially, the low percentages using "rude" mechanisms such as ignoring visitors), and simultaneously favor the use of coming in early and staying late. This line of thought suggests that use of the mechanisms in and of themselves is not harmful, but it is the conflict with normative guidelines which is stressful. Stretching the idea further suggests that the legitimate use of the mechanisms should be less stressful than their nonlegitimate use. Some support for this argument can be found in the data, in that the correlation between use of the mechanisms and blood pressure problems increases from .29 to .36 when job stress--the legitimizer--is covaried out. The total effect is that both overwork and concern about being accessible contribute to job strain.

Future research is needed to answer these questions, and especially to examine the role of privacy mechanisms in other outcomes, such as increased productivity, job satisfaction, perceived job control, etc.

We have been careful to avoid inferring causality from these correlational data. We would also add that such self-report data are subject

to the normal caveats (e.g., self-presentation; response biases; etc.). The results are suggestive, and the hypotheses could be explored profitably through other complementary methodologies.

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Table 1

Reported Use of Behavioral Mechanisms on Typical and Busy Days

	Typical Day	Busy Day
Comes early/stays late	95%[1]	88%[2]
Secretary holds calls	45%	78%
Closes office door	38%	80%
Asks people to call back	30%	63%
Goes to hideaway	25%	44%
Unplugs phone	13%	20%
Asks unexpected visitors to come back	13%	49%
Ignores knocks on door	03%	10%

[1]Percent reporting usage (i.e., ratings of ≥ 2 on 5-point scale).

[2]Some people stayed home on busy days, hence the decrease in this variable from normal to busy days.

Note. Underlined item used more by Type A's than by others ($p < .05$).

Table 2

Correlations Between Privacy Mechanisms and Selected Variables

	Stress				Office Arrangement	
	Role	Task	Bound.-Span.	Conflict Mediating	Door Angle	Window Orientation
Coefficient Alpha	(.88)	(.80)	(.56)	(.57)		
Privacy Mechanisms						
Typical Day	--	.53***	--	--	.25**	.21*
(.61)						
Busy Day	-.21*	--	--	--	--	--
(.81)						

*$p < .10$

**$p < .05$

***$p < .001$

Table 3

Correlations Between Privacy Regulation and Physical Strain

Behavioral	Chronic High Blood Pressure
Normal Day	
All Mechanisms (total n)[1]	.29*
Extreme Type A's	.53*
Others	-.01
Comes Early/Stays Late (total n)	.30*
Extreme Type A's	.06
Others	.38*
All Other Mechanisms (total n)	.20
Extreme Type A's	.51*
Others	-.18
Environmental	
Desk Avoids Window (total n)	-.10
Extreme Type A's	.27
Others	-.31**
Desk Avoids Door (total n)	-.03
Extreme Type A's	-.21
Others	-.05

[1] Sample sizes vary with missing data. Total sample = 42; Type A's, n = 17; Others, n = 23.

*p < .05

**p < .10